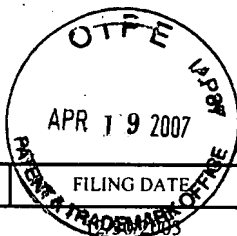




UNITED STATES PATENT AND TRADEMARK OFFICE

06570. P041
SAP AG
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,617

APR 19 2007

Nikolai G. Nikolov

6570P041

9855

8791 7590 01/18/2007
BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

RECEIVED

JAN 22 2007

EXAMINER

DAO, THUY CHAN

ART UNIT

PAPER NUMBER

2192

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
LOS ANGELES

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Date 3/18/2007 ✓ Client: SAP AG

Docket Initials _____ 6570.P041

Dock. Sup. Initials _____

Atty Initials _____ GDC ROR

Pat/Ser/Reg 749617

4 ✓

Description:

Two months since final oa was mailed

1/23/2007

Sandy Lingard

644604

Date 4/11/2007 ✓ Client: SAP AG

Docket Initials _____ 6570.P041

Dock. Sup. Initials _____

Atty Initials _____ GDC ROR

Pat/Ser/Reg 749617

Description:

156 ✓

Reminder, review file for possible filing of continuation application if advisory action or notice of allowance not received by 4/18/2007

1/23/2007

Sandy Lingard

644605

Date 4/18/2007 ✓ Client: SAP AG

Docket Initials _____ 6570.P041

Dock. Sup. Initials _____

Atty Initials _____ GDC ROR

Pat/Ser/Reg 749617

155 ✓ x

Description:

If advisory action or notice of allowance not received by today, review file for possible filing of continuation application.

1/23/2007

Sandy Lingard

644606

Date 4/18/2007 ✓ Client: SAP AG

Docket Initials _____ 6570.P041

Dock. Sup. Initials _____

Atty Initials _____ GDC ROR

Pat/Ser/Reg 749617

Description:

3 ✓ x

Response due final OA and possible appeal/pre-appeal conference.

1/23/2007

Sandy Lingard

644607

Entered in FIP on: 1-23-07By: SL

Docketing Department

Office Action Summary

Application No.

10/749,617

Applicant(s)

NIKOLOV, NIKOLAI G.

Examiner

Thuy Dao

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/06/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the amendment filed on November 6, 2006.
2. Claims 1-34 have been examined.

Response to Amendments

3. Per Applicant's request, claims 1, 11-18, and 28-34 have been amended.
4. The objection to claims 1 and 18 is withdrawn in view of Applicant's amendments.
5. The 35 USC §112, second paragraph rejection over claims 11-12, 15-17, 28-29, and 32-34 is withdrawn in view of Applicant's amendments and explanation.
6. The 35 USC §101 rejection over claims 18-34 is maintained.

Information Disclosure Statement

7. The Office acknowledges receipt of the Information Disclosure Statement filed on November 6, 2006. It has been placed in the application file and the information referred to therein has been considered by the examiner.

Specification

8. The specification is objected to because of minor informalities: acronyms should be spelled out at the first appearance in the disclosure (e.g., "PC" in page 2).
9. The use of the trademark (e.g., JAVA.TM. in page 2) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Response to Arguments

10. The Applicant is thanked for a thorough reply. Applicant's arguments filed on November 6, 2006 have been fully considered. However, they are not persuasive.

The Applicant asserted that Avakian fails at least to disclose "*invoking a second method from a first method, said invoking comprising providing an identification of said first method and a class that said first method is a part of*" (Remarks, page 18, lines 5-8).

The examiner respectfully disagrees with these assertions. Avakian explicitly discloses:

invoking a second method (e.g., FIG. 7, second method as item 702, page 7, [0096])
from a first method (e.g., FIG. 7, first method as item 700, page 7, [0097]),
said invoking comprising providing an identification of said first method (e.g., item 702 in FIG. 7 containing an identification of said first method as illustrated in FIG. 10, item 1004, page 9, [0113]; FIG. 9, item 920, page 8, [0110-0111]) *and*
(an identification of) a class that said first method is a part of (e.g., FIG. 10, item 1002, page 9, [0113]; FIG. 9, item 900, page 8, [0108-109]).

Accordingly, the examiner respectfully maintains the 35 USC §102 and §103 rejections over claims 1-34.

Claim Rejections – 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 18-24 are directed to one or more machine readable media containing instructions, which may include carrier wave embodying data signals (specification, page 68, [0164]).

A machine readable medium product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was

also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of Sec. 101.

See Annex IV (c) Electro-Magnetic Signals, Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (signed October 26, 2005) - OG Cite: 1300 OG 142. Online version can be retrieved at <<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>.

As set forth in the previous Office Action mailed August 23, 2006 and re-emphasized in this Office Action, claims 18-24 are rejected because they are directed to non-statutory classes of Sec. 101.

Under the principles of compact prosecution, claims 18-24 have been examined as the Examiner anticipates the claims will be amended to obviate these 35 USC §101 issues. For example, - -One or more machine readable storage media containing instructions ...- -.

Claim Rejections – 35 USC §102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-3, 5-20, and 22-34 are rejected under 35 U.S.C. 102(e) as being unpatentable over Avakian (art of record, US Patent Publication No. 2005/0039171 A1).

Claim 1:

Avakian discloses a method, comprising: in an object oriented run-time environment:

a) invoking a second method from a first method, said invoking comprising providing an identification of said first method and a class that said first method is a part of (e.g., FIG. 7, page 7, [0096-0097]; FIG. 10, pp.8-9, [0110-0113]; FIG. 9, page 8, [0108-0111]);

b) identifying a plug-in module for said first method based upon said identification, said plug-in module containing a handler method (e.g., FIG. 2, ExecCallback 36 with Plug-In Instrument 27A-B, page 3, [0054], page 4, [0059] and [0064-0066]);

c) executing said handler method to report and/or record information about said first method (e.g., page 4, [0065-0066]); and

d) executing said first method from a point beyond where said second method was invoked (e.g., FIG. 7, executing 700 after executing 702 at line 8).

Claim 2:

The rejection of claim 1 is incorporated. Avakian also discloses said executing of said handler method causes an entry time for said first method to be recorded (e.g., page 11, [0144]).

Claim 3:

The rejection of claim 1 is incorporated. Avakian also discloses said executing of said handler method causes an exit time for said first method to be recorded (e.g., page 11, [0145]).

Claim 5:

The rejection of claim 1 is incorporated. Avakian also discloses said executing of said handler method causes an input parameter value of said first method to be recorded (e.g., page 4, [0065]).

Claim 6:

The rejection of claim 1 is incorporated. Avakian also discloses *said executing of said handler method causes a returned value of said first method to be recorded* (e.g., page 4, [0066]).

Claim 7:

The rejection of claim 1 is incorporated. Avakian also discloses *said first method is a constructor* (e.g., page 5, [0073]).

Claim 8:

The rejection of claim 1 is incorporated. Avakian also discloses *creating, prior to said invoking, an object having an input parameter value of said first method* (e.g., page 4, [0065]).

Claim 9:

The rejection of claim 1 is incorporated. Avakian also discloses *said invoking further comprises providing an input parameter value of said first method* (e.g., page 4, [0064]).

Claim 10:

The rejection of claim 1 is incorporated. Avakian also discloses *said invoking further comprises identifying where said first method's instructions can be found in memory* (e.g., page 4, [0065]).

Claim 11:

The rejection of claim 1 is incorporated. Avakian also discloses *after said executing said first method from a point beyond where said second method was invoked*

invoking a third method from said first method because said first method is about to reach an exit point, said second method having been invoked from said first method because an entry point of said first method had just been reached; re-identifying said plug-in module for said first method as a consequence of said invoking a third method (e.g., page 3, [0051]; page 4, [0065]);

re-executing said handler method to report and/or record information about said first method; and executing a remaining portion of said first method through said exit point (e.g., page 5, [0066]).

Claim 12:

The rejection of claim 1 is incorporated. Avakian also discloses *after said executing said first method from a point beyond where said second method was invoked:*

flowing from said first method to a third method; invoking said second method from said third method, said invoking comprising providing an identification of said third method and a second class that said third method is a part of; identifying said plug-in module for said third method based upon said third method and second class identification (e.g., page 5, [0066]; page 3, [0051]);

executing said handler method to report and/or record information about said third method; and executing a portion of said third method from a point beyond where said second method was invoked (e.g., page 4, [0065]).

Claim 13:

The rejection of claim 12 is incorporated. Avakian also discloses *identifying a second plug-in module for said third method based upon said third method and second class identification, said second plug-in module containing a second handler method (e.g., page 3, [0051]).*

Claim 14:

The rejection of claim 13 is incorporated. Avakian also discloses *executing said second handler method to report and/or record different information about said third method than what said first handler method reported and/or recorded about said third method* (e.g., page 4, [0065]).

Claim 15:

The rejection of claim 14 is incorporated. Avakian also discloses *a first object is called to execute said first method and a second object is called to execute said third method* (e.g., page 5, [0066]).

Claim 16:

The rejection of claim 15 is incorporated. Avakian also discloses *said object oriented run-time environment is a Java object oriented environment* (e.g., page 3, [0051]).

Claim 17:

The rejection of claim 1 is incorporated. Avakian also discloses *said invoking further comprises providing said first method's signature, said first method's signature comprising: said identification of said first method; said identification of said class that said first method is a part of; and said first method's arguments* (e.g., page 4, [0064]).

Claims 18-20 and 22-34:

Claims 18-20 and 22-34 recite the same limitations as those of claims 1-3 and 5-17, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claims, it also teaches all of the limitations of claims 18-20 and 22-34.

Claim Rejections – 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2192

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avakian in view of Hibbeler (art of record, US Patent No. 7,093,234 B2).

Claim 4:

The rejection of claim 1 is incorporated. Avakian does not explicitly disclose *said executing of said handler method causes a counter maintained for said first method to be incremented*.

However, in an analogous art, Hibbeler further discloses *said executing of said handler method causes a counter maintained for said first method to be incremented* (e.g., col.8: 6-10).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the teaching of Hibbeler into that of Avakian. One would have been motivated to do so to profile suspected hot spots or bottlenecks in the target application as suggested by Hibbeler (e.g., col.3: 11-35).

Claim 21:

The rejection of claim 18 is incorporated. Claim 21 recites the same limitations as those of claim 4, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 21.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone is (571) 272 8570. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 6:00AM to 4:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. Dao



TUAN DAM
SUPERVISORY PATENT EXAMINER

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	10/749,617
Filing Date	December 30, 2003
First Named Inventor:	Nikolai G. Nikolov
Art Unit	2194 2192
Examiner Name	Samuel G. Neway
Attorney Docket Number	6570.P041

Sheet 1 of 3

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
TD		us-	7,093,234	08-15-2006	Hibbeler et al.	
↓		us-	2002/0170036	11-14-2002	Cobb et al.	
		us-	2005/0039171 A1	02-17-2005	Avakian et al.	
		us-	2005/0039187 A1	02-17-2005	Avakian et al.	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner
Signature

/Thuy Dao/

Date Considered

01/04/2007

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	10/749,617
Filing Date	December 30, 2003
First Named Inventor:	Nikolai G. Nikolov
Art Unit	2194 2192
Examiner Name	Samuel G. Neway
Attorney Docket Number	6570.P041

Sheet 2 of 3

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
TD		GEOFF A. COHEN et al., "Automatic Program Transformation with JOIE", Paper, Department of Computer Science, Duke University, 12 pages	
		ALAN SNYDER, "The Essence of Objects: Concepts and Terms", IEEE Software, January 1993, pp. 31-42, Sunsoft, Mountain View	
		Duke University, "The Java Object Instrumentation Environment", www.cs.duke.edu/ari/joie/ , last updated May 2003, printed September 28, 2006, 2 pages.	
		RALPH KELLER et al., "Supporting the Integration and Evolution of Components Through Binary Component Adaptation", www.cs.ucsb.edu/oocsb/ , September 9, 1997, Technical Report TRCS97-15, 12 pages	
		HAN BOK LEE, "BIT: Bytecode Instrumenting Tool" University of Colorado, Department of Computer Science 1997, 51 pages	
		MARKUS DAHM, "Welcome to the Byte Code Engineering Library 4.4.1", http://bcel.sourceforge.net/main.html , last updated 4/12/2002, 2 pages, printed September 28, 2006	
		Alphaworks, "Jikes Bytecode Toolkit: Overview", www.alphaworks.ibm.com/tech/jikesbt , posted March 31, 2000, 2 pages, printed September 28, 2006	

Examiner
Signature

/Thuy Dao/

Date
Considered

01/04/2007

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Examiner Signature	/Thuy Dao/	Date Considered	01/04/2007
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*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English Translation is attached.

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In Re Application of: Nikolai G. Nikolov

Serial No: 10/749,617

Filed: December 30, 2003

For: Execution of Modified Byte Code For Debugging, Testing And/Or
Monitoring Of Object Oriented Software

CLAIMS AS AMENDED- RESPONSE TO FINAL OFFICE ACTION

MAILED January 18, 2007

1. (Currently Amended) A method, comprising:

in an object oriented run-time environment, after a class has been loaded:

- a) invoking a second method from a first method, said first method
belonging to said class, said invoking comprising providing an
identification of said first method and a said class ~~that said first method~~
~~is a part of~~;
- b) identifying a plug-in module for said first method based upon said
identification, said plug-in module containing a handler method;
- c) executing said handler method to report and/or record information
about said first method; and,
- d) executing said first method from a point beyond where said second
method was invoked.

2. (Original) The method of claim 1 wherein said executing of said handler
method causes an entry time for said first method to be recorded .

3. (Original) The method of claim 1 wherein said executing of said handler method causes an exit time for said first method to be recorded.
4. (Original) The method of claim 1 wherein said executing of said handler method causes a counter maintained for said first method to be incremented.
5. (Original) The method of claim 1 wherein said executing of said handler method causes an input parameter value of said first method to be recorded.
6. (Original) The method of claim 1 wherein said executing of said handler method causes a returned value of said first method to be recorded.
7. (Original) The method of claim 1 wherein said first method is a constructor.
8. (Original) The method of claim 1 further comprising creating, prior to said invoking, an object having an input parameter value of said first method.
9. (Original) The method of claim 1 wherein said invoking further comprises providing an input parameter value of said first method.
10. (Original) The method of claim 1 wherein said invoking further comprises identifying where said first method's instructions can be found in memory.

11. (Previously Presented) The method of claim 1 further comprising, after said executing said first method from a point beyond where said second method was invoked:

- e) invoking a third method from said first method because said first method is about to reach an exit point, said second method having been invoked from said first method because an entry point of said first method had just been reached;
- f) re-identifying said plug-in module for said first method as a consequence of said invoking a third method;
- g) re-executing said handler method to report and/or record information about said first method; and,
- h) executing a remaining portion of said first method through said exit point.

12. (Previously Presented) The method of claim 1 further comprising, after said executing said first method from a point beyond where said second method was invoked:

- e) flowing from said first method to a third method
- f) invoking said second method from said third method, said invoking comprising providing an identification of said third method and a second class that said third method is a part of;

- g) identifying said plug-in module for said third method based upon said third method and second class identification;
- h) executing said handler method to report and/or record information about said third method; and,
- i) executing a portion of said third method from a point beyond where said second method was invoked.

13. (Previously Presented) The method of claim 12 wherein g) further comprises also identifying a second plug-in module for said third method based upon said third method and second class identification, said second plug-in module containing a second handler method.

14. (Previously Presented) The method of class 13 further comprising also executing said second handler method to report and/or record different information about said third method than what said first handler method reported and/or recorded about said third method.

15. (Previously Presented) The method of claim 14 wherein a first object is called to execute said first method and a second object is called to execute said third method.

16. (Previously Presented) The method of claim 15 wherein said object oriented run-time environment is a Java object oriented environment.

17. (Previously Presented) The method of claim 1 wherein said invoking further comprises providing said first method's signature, said first method's signature comprising:

said identification of said first method;

said identification of said class that said first method is a part of; and,

said first method's arguments.

18. (Currently Amended) ~~One or more machine-readable media containing~~ An article of manufacture having stored thereon executable instructions or interpretable program code which when executed by one or more computing systems cause a method to be performed, said method, comprising:

in an object oriented run-time environment, after a class has been loaded:

- a) invoking a second method from a first method, said first method belonging to said class, said invoking comprising providing an identification of said first method and a said class that said first method is a part of;
- b) identifying a plug-in module for said first method based upon said identification, said plug-in module containing a handler method;
- c) executing said handler method to report and/or record information about said first method; and,
- d) executing said first method from a point beyond where said second method was invoked.

19. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said executing of said handler method causes an entry time for said first method to be recorded .

20. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said executing of said handler method causes an exit time for said first method to be recorded.

21. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said executing of said handler method causes a counter maintained for said first method to be incremented.

22. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said executing of said handler method causes an input parameter value of said first method to be recorded.

23. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said executing of said handler method causes a returned value of said first method to be recorded.

24. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said first method is a constructor.

25. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 further comprising creating, prior to said invoking, an object having an input parameter value of said first method.

26. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said invoking further comprises providing an input parameter value of said first method.

27. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said invoking further comprises identifying where said first method's instructions can be found in memory.

28. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 further comprising, after said executing said first method from a point beyond where said second method was invoked :

e) invoking a third method from said first method because said first method is about to reach an exit point, said second method having been invoked from said first method because an entry point of said first method had just been reached;

f) re-identifying said plug-in module for said first method as a consequence of said invoking a third method;

- g) re-executing said handler method to report and/or record information about said first method; and,
- h) executing a remaining portion of said first method through said exit point.

29. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 further comprising, after said executing said first method from a point beyond where said second method was invoked:

- e) flowing from said first method to a third method
- f) invoking said second method from said third method, said invoking comprising providing an identification of said third method and a second class that said third method is a part of;
- g) identifying said plug-in module for said third method based upon said third method and second class identification;
- h) executing said handler method to report and/or record information about said third method; and,
- i) executing a portion of said third method from a point beyond where said second method was invoked.

30. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 29 wherein g) further comprises also identifying a second plug-in module for said third method based upon said third method and second

class identification, said second plug-in module containing a second handler method.

31. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 30 further comprising also executing said second handler method report and/or record different information about said third method than what said first handler method reported and/or recorded about said third method.

32. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 31 wherein a first object is called to execute said first method and a second object is called to execute said third method.

33. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 32 wherein said object oriented run-time environment is a Java object oriented environment.

34. (Currently Amended) The ~~one or more machine-readable media~~ article of manufacture of claim 18 wherein said invoking further comprises providing said first method's signature, said first method's signature comprising:

said identification of said first method;

said identification of said class that said first method is a part of; and,

said first method's arguments.